



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>F24D 19/10, 5/00, F24J 2/50</b>		A1	(11) International Publication Number: <b>WO 96/25632</b>
			(43) International Publication Date: 22 August 1996 (22.08.96)
(21) International Application Number: <b>PCT/IE96/00006</b>		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 13 February 1996 (13.02.96)			
(30) Priority Data: S950113 13 February 1995 (13.02.95) IE			
(71) Applicant (for all designated States except US): KOLLECTAIRE TECHNOLOGY LIMITED [IE/IE]; Unit 1, Cookstown Square, Cookstown Industrial Estate, Dublin 24 (IE).			
(72) Inventor; and (75) Inventor/Applicant (for US only): QUIGLEY, William [IE/IE]; 34 Knocklyon Heights, Templeogue, Dublin 16 (IE).			
(74) Agent: MACLACHLAN & DONALDSON; 47 Merrion Square, Dublin 2 (IE).			
		<b>Published</b> With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	

(54) Title: IMPROVED SOLAR PANEL AND AIR HEATING AND HEAT RECOVERY VENTILATION SYSTEM

## (57) Abstract

An air heating and heat recovery ventilation system comprise on or more solar panels (1, 1') for absorbing and collecting energy from the sun during daylight hours, an energy processing unit (50) for combining and distributing energy from different sources; a boiler (10) which is interlinked to the system via the energy processing unit (50), an air distribution system and air handling unit (105) which allows for heat to be distributed throughout a house via a network of conduits and a control means which provides a means for coordinating and controlling all the components and functions of the system. The solar panel (1) has a solar radiation transmitting cover (7) and a reflective base held in spaced apart relationship by side end members (1a, 1b), a solar radiation absorber (6) within the housing, inlet means enabling fluid to enter the absorber at one end of the housing, and outlet means enabling the fluid to exit from the absorber at an opposite end of the housing. The cover (7) is a sheet of glass, the underside of which has a "low E" coating. The cover (7) may also be spaced apart from the solar radiation absorber (6) and an air gap is provided between the cover (7) and absorber (6).

